NIH

Constraint-based Multiple Alignment Tool

Home Recent Results Help

Phylogenetic Tree Edit and Resubmit Download

## - Cobalt RID PFMGBSYM212 (4 seqs)

## ▼ Graphical Overview

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Sequence ID	Start	1	 		 	1000	• • • • • • • • • • • • • • • • • • • •	1281 End	Organism
)VN46559.1	1 *							1,254	Bat SARS-like coronav
VN46569.1	1 ×			H				1,253	Bat SARS-like coronav
P 003858584.1	1 ×							1,259	Bat coronavirus BM48-
CA87361.1								1,273	Severe acute respirato

▼ <u>Descriptions</u> ✓ Select All (Re-align) ► <u>Alignment parameters</u>

Accession	Description	Links
✓ <u>QVN46559.1</u>	spike glycoprotein [Bat SARS-like coronavirus Khosta-1]	
✓ <u>QVN46569.1</u>	spike glycoprotein [Bat SARS-like coronavirus Khosta-2]	
✓ <u>YP_003858584.1</u>	spike protein [Bat coronavirus BM48-31/BGR/2008]	Related Information
☑ <u>BCA87361.1</u>	surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]	

▼ Alignments ☑ Select All Re-align Mouse over the sequence identifer for sequence title View Format: | Expanded ✓ | (2) Conservation Setting: 2 Bits 😽 🔞 **☑** <u>QVN46559.1</u> MKFFIFLSFLPLITAQEG-CGVLSNKSTPNLDQFLSSRRGFYYFDDTFRSSVRVLTSGYFLPFQSNLTRYLTLESITGRR 79 ✓ <u>QVN46569.1</u> MKLFLFLFLLPLVGAQDG-CATLSTKLTPTQLQVNSTRRGFYYFDDIYRSSLRVLVPGYFLPFGTNITRYQA-QVINWTA 78 1 ✓ YP 003858584.1 1 MKFLAFLCLLGFANAQDGkCGTLSNKSPSKLTQTPSSRRGFYYFDDIFRSSIRVLTTGHFLPFNTNLTWYLTLKSNGKQR 80 ☑ BCA87361.1 --MFVFLVLLPLVSSQ---CVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNVTWFHAIHVSGTNG 75 ✓ <u>QVN46559.1</u> IY-FDNPNIPFKDGLYFAATEKSNVIRGWIFGSTLDNTTQSAVLFNNGTHIVVNVCNFNFCQDPMLAISAGSPYKSW--- 155 80 **☑** <u>QVN46569.1</u> 79 IF-FDNPVIPFNDGVYFAALEHSNVVRGWIFGTTLDNTTQSAIVVNNATHILISVCYFNVCKEPMFAVSNFKPYKSW--- 154 ✓ YP 003858584.1 81 IY-YDNPNINFGDGVYFGLTEKSNVFRGWIFGSTLDNTTQSAVLFNNGTHIVIDVCNFNFCADPMFAVNSGQPYKTW--- 156 ✓ BCA87361.1 76 TKrFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVNNATNVVIKVCEFQFCNDPFLGVYYHKNNKSWmes 155 ✓ <u>QVN46559.1</u> ---VYTTATNCTYNRL-HAFNISTSINPGSFVHLREHVFRNVDGFLYVYHNYESINVTNTFPGGFSVLKPILKLPFGLNI 231 156 ✓ <u>QVN46569.1</u> ---VYDRANNCTFNRA-YPLNISTTPEPGKFKALREQVFRYQDGFLYIYHSYESIN-SDTLPPGFSVLKPMLKLPLGLNI 229 ✓ YP 003858584.1 157 ---IYTSAANCTYHRA-HAFNISTNMNPGKFKHFREHLFKNVDGFLYVYHNYEPIDLNSGFPSGFSVLKPILKLPFGLNI 232 ✓ BCA87361.1 156 efrvyssannctfeyvsQPFLMDLEGKQGNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINI 235 **☑** <u>QVN46559.1</u> 232 THFKVIMTLFSN-----TTQSFEADASAYFVGHLKPLTMLADFDENGTIVDAVDCSQNPLSELKCTTKSFSVEKGIYQT 305 ✓ <u>QVN46569.1</u> 230 TRFRVVMAMHSL-----TTSNFNTHSVNYFVGHLKPLTMLVEFSPNGTIIDAIDCSQDPLSELKCTTKSFSVEKGIYQT 303 ✓ YP 003858584.1 233 TYVKAIMTLFSS-----TQSNFDADASAYFVGHLKPLTMLVDFDENGTIIDAIDCSQDPLSELKCTTKSFTVEKGIYQT 306 ✓ BCA87361.1 236 TRFQTLLALHRSyltpgdSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETKCTLKSFTVEKGIYQT 315 ✓ <u>QVN46559.1</u> 306 SNFRVSPSTEVVRFPNITNLCPFGQVFNASTFPSVYAWGRMRISDCVADYSVLYNSTSSFSTFKCYGVSPTKLNDLCFSS 385 **☑** <u>QVN46569.1</u> 304 SNFRVSPSLDVVRFPNMTNICPFDQVFNKTQFPSVYAWERVRISDCVSDYTVLYNSSASFSTFKCYGVSPTKLNDLCFSG 383 ✓ YP 003858584.1 307 SNFRVTPTTEVVRFPNITQLCPFNEVFNITSFPSVYAWERMRITNCVADYSVLYNSSASFSTFQCYGVSPTKLNDLCFSS 386 ✓ BCA87361.1 SNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNS-ASFSTFKCYGVSPTKLNDLCFTN 394 386 VYADYFVVKGDDVRQIAPAQTGVIADYNYKLPDDFTGCVLAWNTKSIDKG----QGFYYRLFRHGKIKPYERDTSNVPYN 461 ✓ <u>QVN46569.1</u> VYADYFVVKGDHVHQIAPGQTGVIADYNYKLPSEFVGCILAWNTRTIDSK----RGFYYRLFRHGNIRPYERDTSNVPYN 459 384 ✓ YP 003858584.1 387 VYADYFVVKGDDVRQIAPAQTGVIADYNYKLPDDFTGCVIAWNTNSLDSS----NEFFYRRFRHGKIKPYGRDLSNVLFN 462 ✓ BCA87361.1 395 VYADSFVIRGDEVRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNNLDSKvggnYNYLYRLFRKSNLKPFERDISTEIYQ 474 462 AQGGTCTDTSQLNCYQPLKSYDFTDTVGVGYQPYRVVVLSFELLNAPATVCGPKQSTELVKNKCVNFNFNGLTGTGVLTE 541 ✓ <u>QVN46569.1</u> AAGGTCNQPGTHNCYEPLQDYGFTSTSGVGYQPFRVVVLSFELLNAPATVCGPKQSTDLVKNKCVNFNFNGLTGTGVLTD 539 460 ✓ YP 003858584.1 PSGGTCS-AEGLNCYKPLASYGFTQSSGIGFQPYRVVVLSFELLNAPATVCGPKQSTELVKNKCVNFNFNGLTGTGVLTN 541 463 ✓ BCA87361.1 AGSTPCNGVEGFNCYFPLQSYGFQPTNGVGYQPYRVVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTE 554 475 ✓ <u>QVN46559.1</u> 542 STKRFQSFQQFGRDISDFTDSVRDPKTLEILDISPCSYGGVSVITPGTNASNVVAVLYQDVNCTDVPTMLHTEQVAHDWR 621 **☑** <u>QVN46569.1</u> 540 619 SNKKFQPFQQFGRDSADFTDSVKDPKTLEILDITPCSYGGVSVITPGTNTSDSVAVLYQDVNCTDVPTMLHMDQVSNDWR ✓ YP 003858584.1 542 STKKFQPFQQFGRDVSDFTDSVRDPKTLEILDIAPCSYGGVSVITPGTNASSSVAVLYQDVNCTDVPTMLHADQISHDWR 621 ✓ BCA87361.1 SNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQDVNCTEVPVAIHADQLTPTWR 634 555 ✓ <u>QVN46559.1</u> 622 VYAVNTDGNMFQTQAGCLVGATYENTSYECDIPIGAGVCAKFGST----KTRQ---QSILAYTMSIGEDQSVAYSNNSI 693 ✓ <u>QVN46569.1</u> 620 VYAVNTDGNMFQTQAGCLVGATYDNTSYECDIPVGAGVCAKFQTTT----RAKQ---SSILAYTMSLGEDSNVAYSNNSI 692 ✓ YP 003858584.1 622 VYAFRNDGNIFOTOAGCLIGAAYDNSSYECDIPIGAGICAKYTNVSSTLVRSGG---HSILAYTMSLGDNODIVYSNNTI 698 ✓ BCA87361.1 VYS--TGSNVFQTRAGCLIGAEHVNNSYECDIPIGAGICASYQTQTNSPRRARSvasQSIIAYTMSLGAENSVAYSNNSI 712 694 AIPTNFSISVTTEVLPVSMTKTSVDCNMYICGDSTECSNLLLQYGSFCTQLNRALSGIAVEQDRNTRDVFAQTKTIYKTP 773 ✓ <u>QVN46569.1</u> 693 AIPTNFTISVTTEVLPVSMTKTAVDCNMYICGDSTECSSLLLQYGSFCQQLNRALAGVSVEQDKNTQDVFAQVKSIYKVS 772 ✓ YP 003858584.1 AIPMNFSISVTTEVLPVSMTKTSVDCNMYICGDSTECSNLLLQYGSFCTQLNRALAGIAVEQDRNTRDVFAQTKAMYKTP 778 699 ✓ BCA87361.1 AIPTNFTISVTTEILPVSMTKTSVDCTMYICGDSTECSNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTP 792 713 NIKDFGGFNFSQILPDPGKPSQRSFIEDLLYNKVTLADPGFMKQYGDCLGGINARDLICAQKFNGLTVLPPLLTDDMIAA 853 774 ✓ <u>QVN46569.1</u> 773 AIKDFGGFNFSQILPDPAKPSKRSFIEDLLYNKVTLADPGFMKQYGDCLGGVNARDLICAQKFNGLTVLPPLLTDDMIAA 852 ✓ YP 003858584.1 779 SLKDFGGFNFSQILPDPAKPSSRSFIEDLLYNKVTLADPGFMKQYGDCLGGVNARDLICAQKFNGLTVLPPLLTDEMIAA 858 ✓ BCA87361.1 PIKDFGGFNFSQILPDPSKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIAARDLICAQKFNGLTVLPPLLTDEMIAQ 872 793 **☑** <u>QVN46559.1</u> YTAALISGTATAGYTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAISQIQDSLTTTTTALGKLQDVI 933 854 **☑** <u>QVN46569.1</u> 853 YTSALVSGTALSGFTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAISQIQESLTTTATALGKLQDVI 932 ✓ YP 003858584.1 YTAALISGTATAGFTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAISQIQDSLSTTTTALGKLQDVI 938 859 ✓ BCA87361.1 YTSALLAGTITSGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQFNSAIGKIQDSLSSTASALGKLQDVV 952 873 ✓ <u>QVN46559.1</u> 934 NQNAAALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSEC 1013 **☑** <u>QVN46569.1</u> NQNAIALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAADIRASANLAATKMSEC 1012 933 ✓ YP 003858584.1 NQNAIALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSEC 1018 939 ☑ BCA87361.1 NQNAQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSEC 1032 953 ✓ <u>QVN46559.1</u> VLGQSKRVDFCGKGYHLMSFPQAAPHGVVFLHVTYVPSEQKNFTTAPAICHNGKAYFPKEGVFVMNGTHWFITQRNFYSP 1093 1014 **☑** <u>QVN46569.1</u> 1013 VLGQSKRVDFCGKGYHLMSFPQAAPHGVVFLHVTYVPSQDKNFTTAPAICHKGKAYFPREGVFVTNGTHWFVTQRNFYQP 1092 ✓ YP 003858584.1 1019 VLGQSKRVDFCGKGYHLMSFPQAAPHGVVFLHVTYVPSQEQNFTTAPAICHEGKAHFPREGVFVTNGTHWFITQRNFYSP 1098 ✓ BCA87361.1 1033 VLGQSKRVDFCGKGYHLMSFPQSAPHGVVFLHVTYVPAQEKNFTTAPAICHDGKAHFPREGVFVSNGTHWFVTQRNFYEP 1112 ✓ <u>QVN46559.1</u> 1094 QVITTDNTFESGTCDVVIGIVNNTVYDPLQPELESFKQELDKYFKNHTSPDVGLGDISGINASVVDIKKEIEHLNEIAKN 1173 **☑** <u>QVN46569.1</u> 1093 EVITTENTFESGNCDVVIGIVNNTVYDPLQPELESFKEELDKYFKNHTSPDVDFDDISGINASVVDIKKEIEHLNEIAKS 1172 ✓ YP 003858584.1 1099 QPITTDNTFVSGNCDVVIGIVNNTVYDPLQPELDSFKEELDKYFKNHTSQNVSLDGLNNINASVVDIKKEIEHLNEIAKS 1178 ✓ BCA87361.1 QIITTDNTFVSGNCDVVIGIVNNTVYDPLQPELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVAKN 1192 **☑** <u>QVN46559.1</u> LNESLIDLQELGKYEQYIKWPWYVWLGFIAGIIAIVMATIMLCCMTSCCSCFKGLCSCGSCCKFDEDTSEPVLKGVKLHY 1253 **☑** <u>QVN46569.1</u> LNESLIDLQELGKYEQYIKWPWYVWLGFIAGLIAIIMATIMLCCMTSCCSCLKGLCSCGSCCKFDDDHSEPVLKGVKLHY 1252 ✓ <u>YP 003858584.1</u> 1179 LNESLIDLQELGKYEQYIKWPWYVWLGFIAGLIAIVMATIMLCCMTSCCSCLKGVCSCASCCKFDEDHSEPVLTGVKLHY 1258 ☑ BCA87361.1 LNESLIDLQELGKYEQYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDDSEPVLKGVKLHY 1272 1193 ✓ <u>QVN46559.1</u> 1254 T 1254 **☑** <u>QVN46569.1</u> 1253 T 1253 ✓ YP 003858584.1 1259 T 1259 ✓ BCA87361.1 1273 T 1273